

Patent 6,333,333

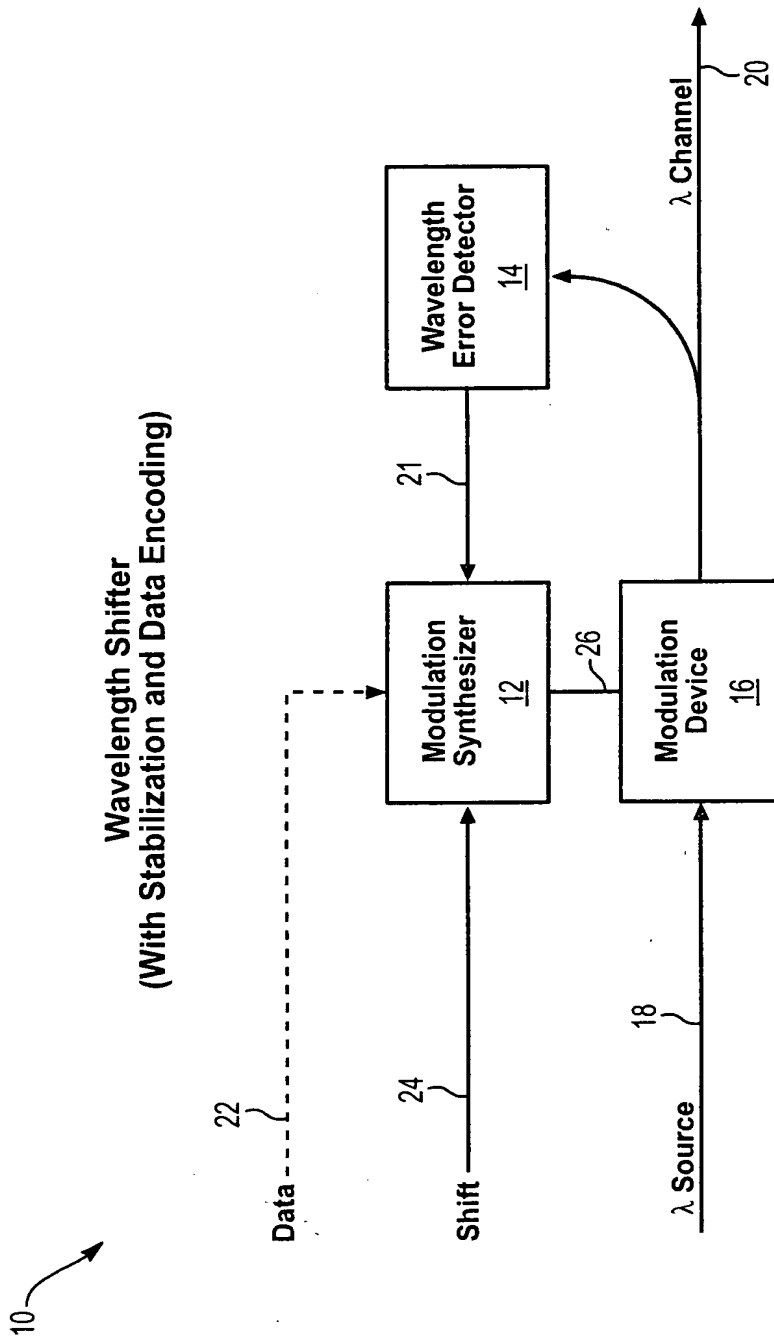


FIG. 1

Quadrature Mach-Zehnder Modulation Device

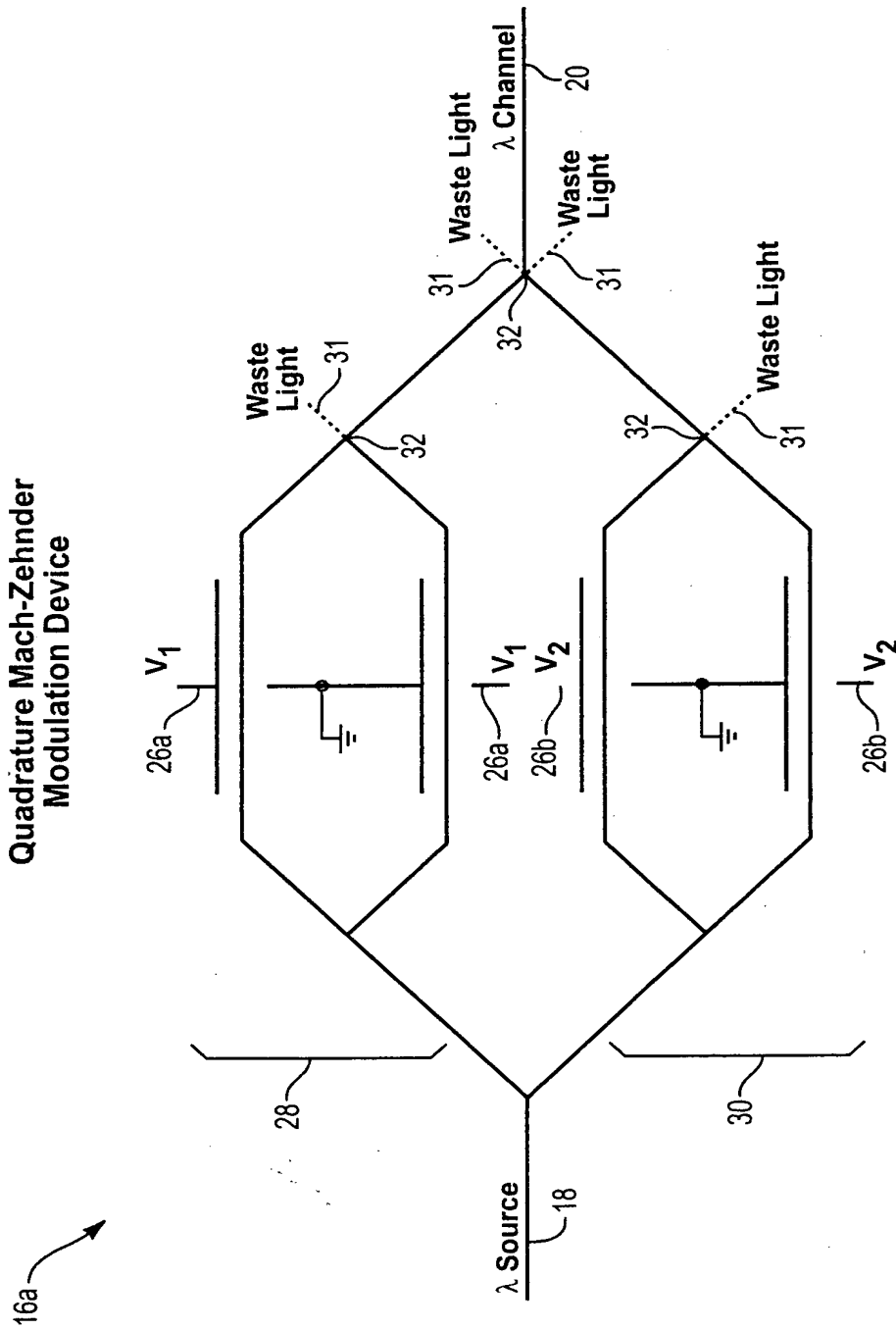


FIG. 2

FIG. 3

Mach-Zehnder Device Transfer Function

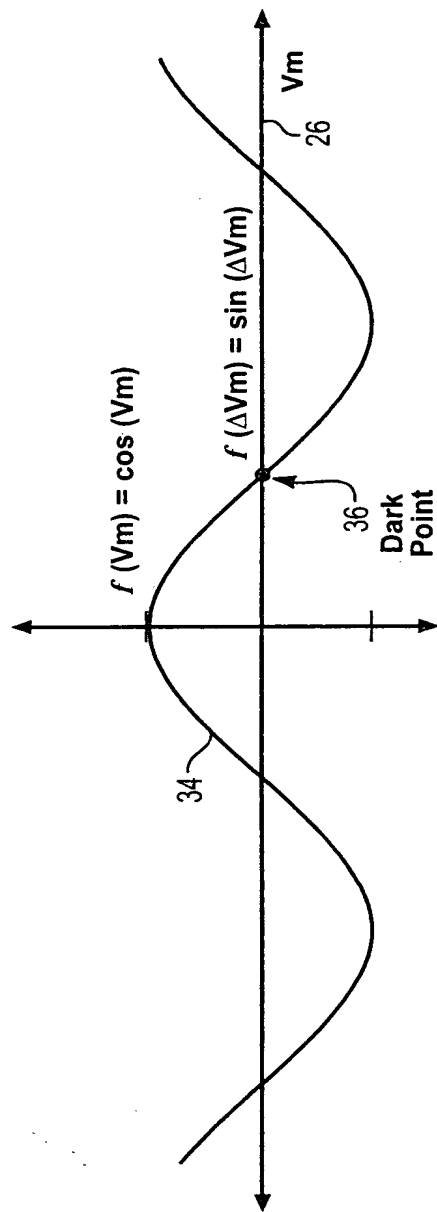


FIG. 3

12

Modulation Synthesizer

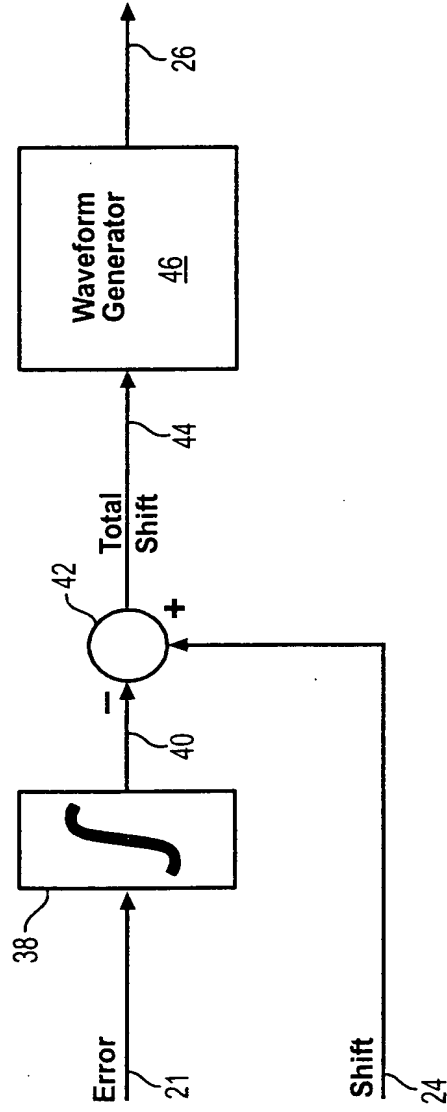


FIG. 4

12

Quadrature Modulation Synthesizer (With On/Off Data Keying)

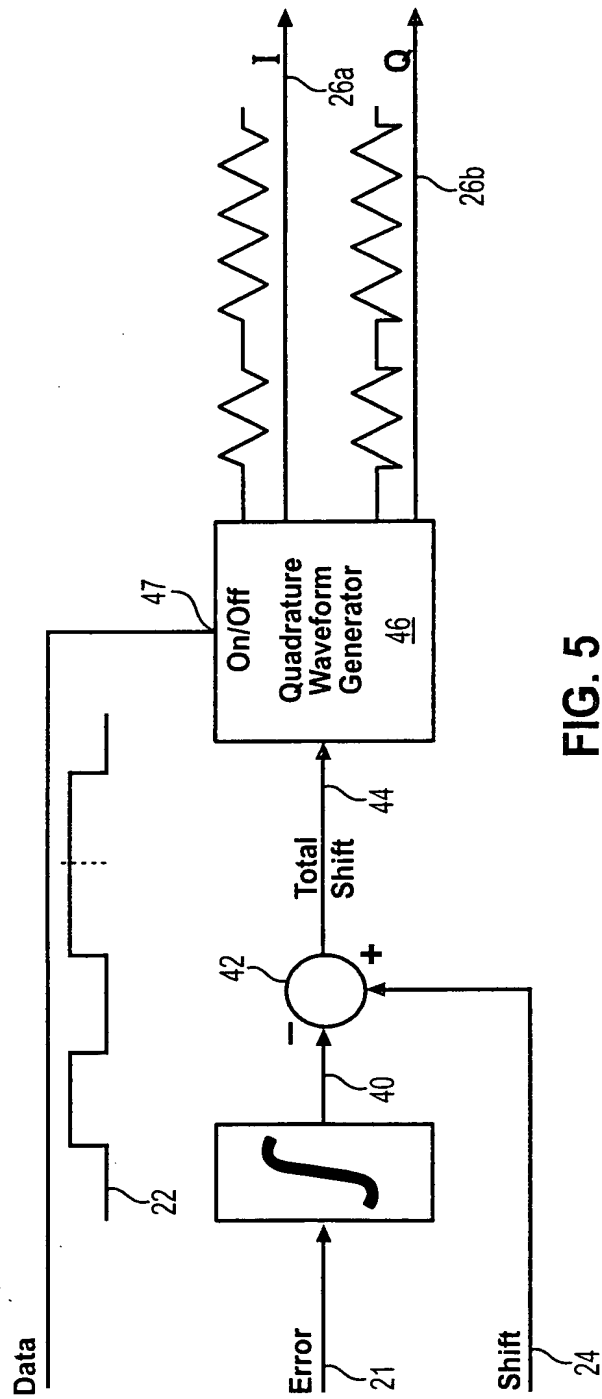


FIG. 5

FIG. 6

Phase Modulation Device

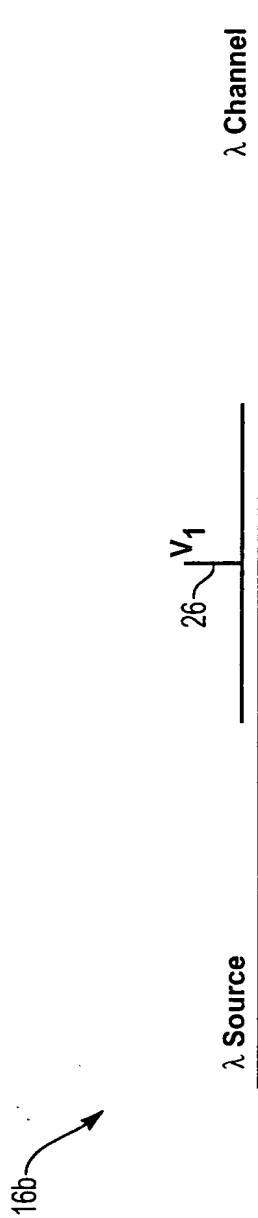


FIG. 6

Modulation Synthesizer (With Frequency Shift Keying)

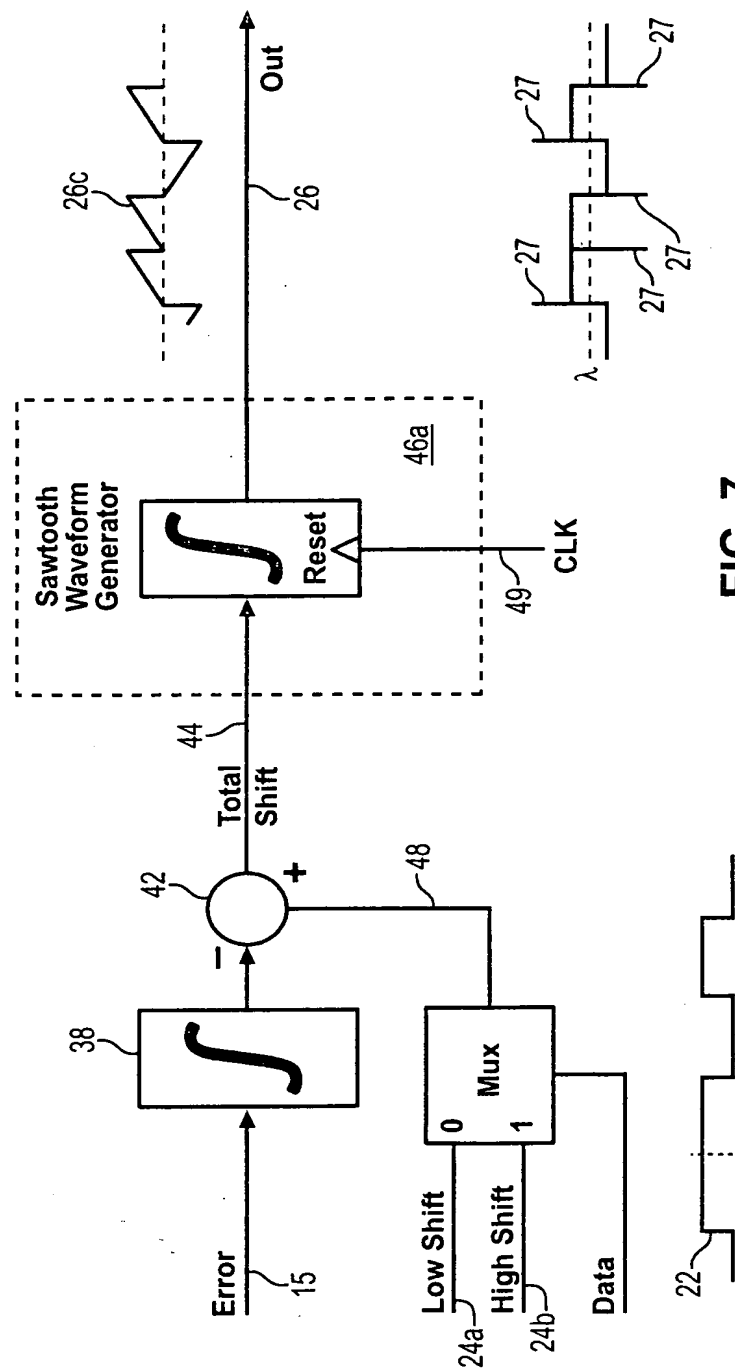


FIG. 7

Wavelength Error Detector
(Fixed Wavelength)

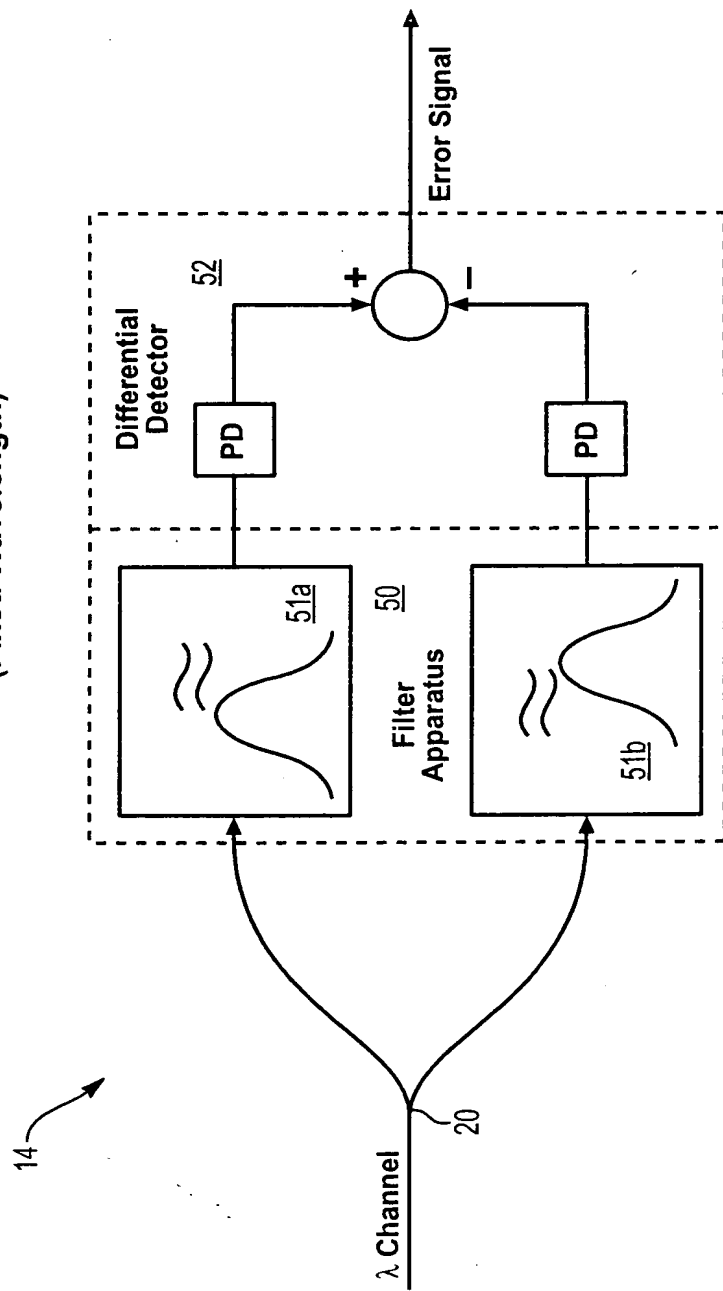


FIG. 8

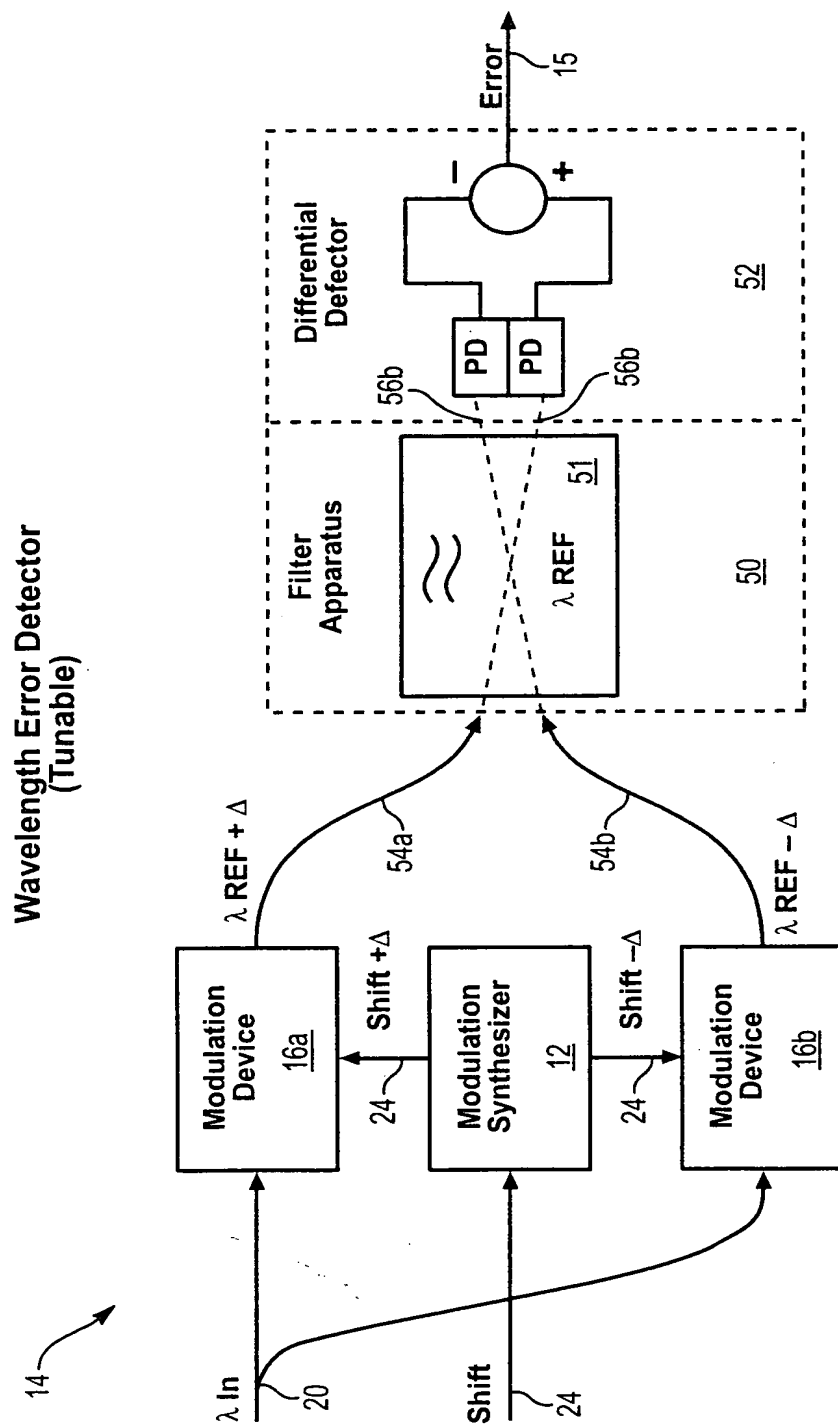


FIG. 9

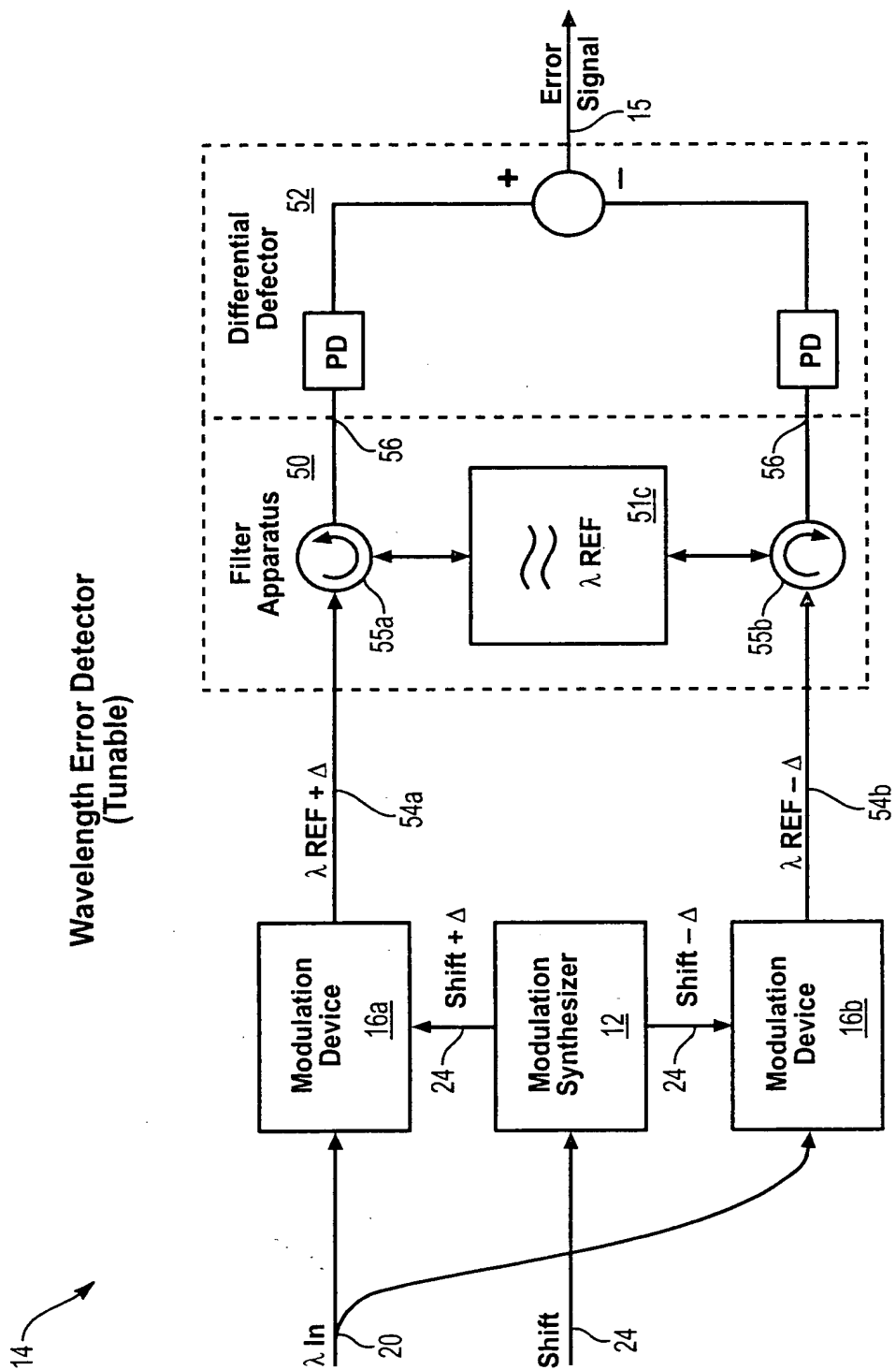


FIG. 10

70 → Tunable Wavelength Stabilized Transmitter

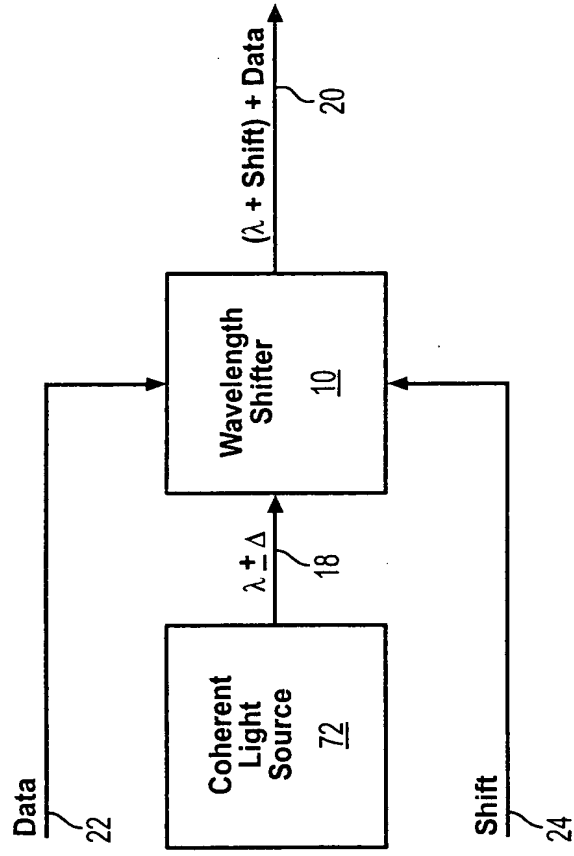


FIG. 12

Recursive Wavelength Shifter

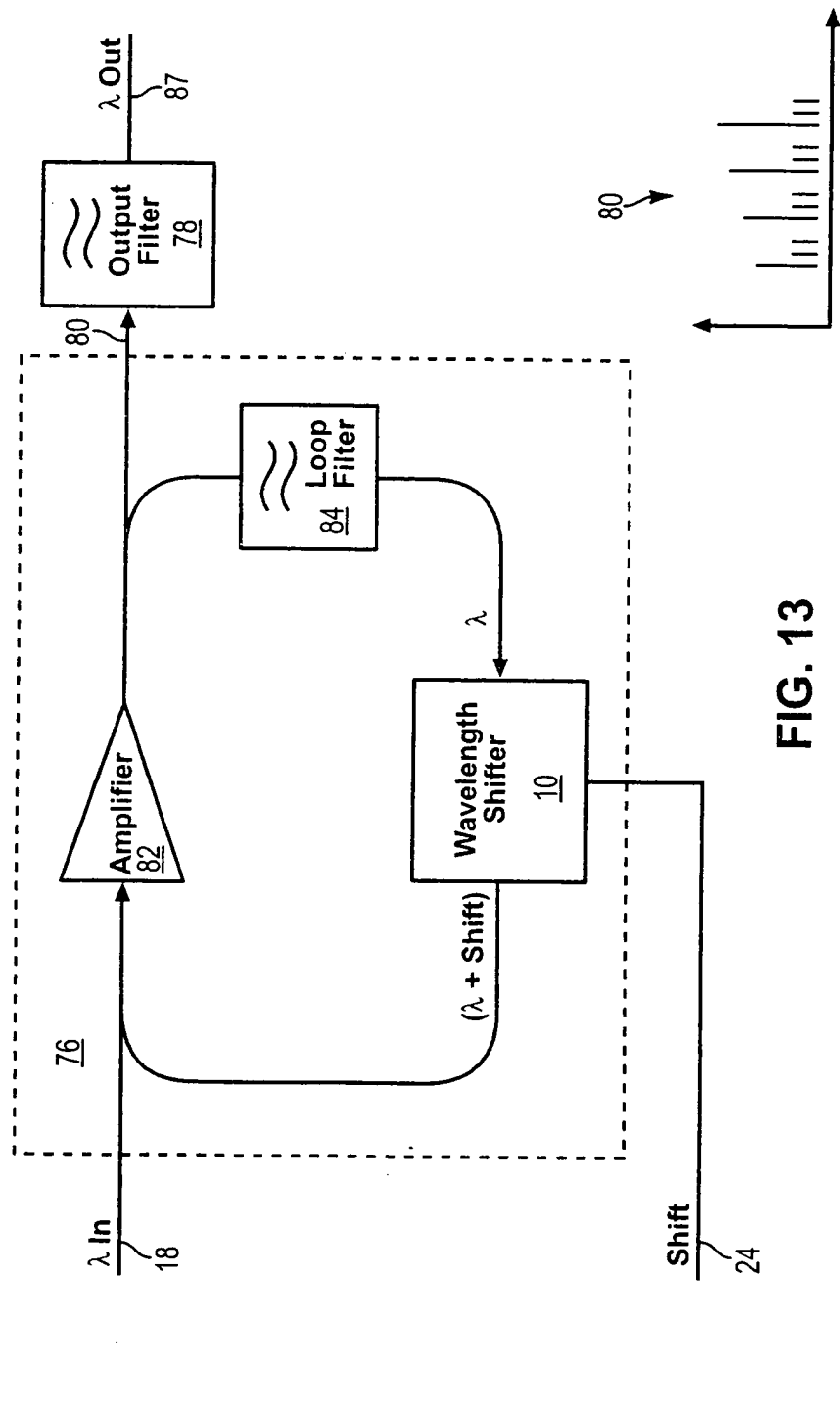


FIG. 13

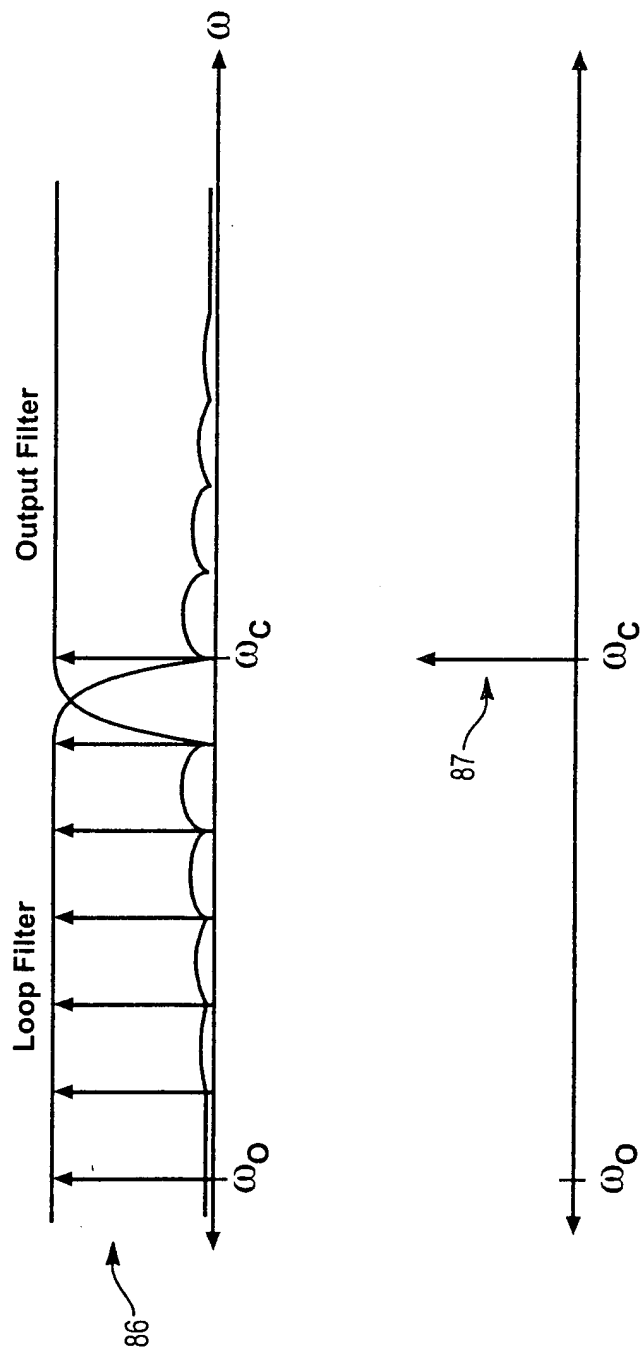


FIG. 14